



LANCASTER INSULATION

Lancaster Insulation Polymeric Silent Mat

Description

The silent mat is a multilayer design manufactured from a three part laminate build up. This comprises of a heavy central layer core available as a lead mass plenum layer or heavy polymeric barrier with a foil backing. Laminated to this is a low density glass mineral or Rock mineral felt. This layer has a multi option of either being faced as a secondary class 0 foil or a tissue scrim detailed below.



Applications

Used in a range of sound deadening applications and due to its flexibility can be used as heavy plant lagging fans and blowers, Engine/generator compressor or turbine covers both onshore and offshore. Acoustic drapes and covers. Along with a range of other pipe and duct runs in plumbing and other applications.

GLASS FIBER FELT (OPTION 1) PHYSICAL CHARACTERISTICS

Density	24kg/m ³
Resin Binder Content	1.5 +/-0.2%
Resin breakdown temperature	250°C
Fire Resistance	Euroclass A1
Face options	(Class 0 foil) or white & black tissue

ROCK FIBER FELT (OPTION 2) PHYSICAL CHARACTERISTICS

Density	45 kg/m ³
Resin Binder content	<1%
Resin Break down temperature	250 °C
Fire Resistance	Euroclass A1
Face options	(Class 0 foil) or white & Black tissue

POLYMERIC BARRIER

Density options	5kgm ² and 10kgm ²
Fire Resistance	FMVSS 302 self- extinguishing
Reinforcement foil	Class 0

Supply sizes (standard) both Glass and Rock

Roll Dimension

25mm Mineral fibre with 5 kg/m² polymeric barrier
25mm Mineral fibre with 10 kg/m² polymeric barrier
50mm Mineral fibre with 5 kg/m² polymeric barrier
50mm Mineral fibre with 10 kg/m² polymeric barrier

1200 x 2 mtrs
1200 x 2 mtrs
1200 x 2 mtrs
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Technical Acoustic absorption information

Sound reduction index	Frequency Range					
Product	125 Hz	250 Hz	500Hz	1000Hz	2000Hz	4000Hz
5 kg mass layer 25mm Glass Felt	14	16	20	30	37	44
5 kg mass layer 25mm Rock Felt	15	17	21	31	38	44
5 kg mass layer 50mm Glass Felt	14	19	24	31	43	48
5 kg mass layer 50mm Rock Felt	15	19	25	32	43	48
10 kg mass layer 25mm Glass Felt	18	21	25	33	43	49
10 kg mass layer 25mm Rock Felt	19	21	26	34	44	49
10 kg mass layer 50mm Glass Felt	18	22	29	37	48	56
10 kg mass layer 50mm Rock Felt	19	22	30	38	48	56

(Information to be used as a guide only)

Installation Guide for MC Resources Polymeric Barrier 5001

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1. Product Overview

The MC Resources Polymeric Barrier 5001 is engineered to provide robust protection and separation in various environments. Its advanced polymeric composition ensures durability and flexibility, making it ideal for both residential and commercial applications.

2. Safety Information

- **Personal Protective Equipment (PPE):** Always wear gloves and safety goggles during installation.



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- **Work Environment:** Ensure that the installation area is free of hazards and that you have adequate ventilation if using adhesives.
- **Lifting Techniques:** Use proper lifting techniques to avoid injury when handling large rolls of the barrier.

3. Tools and Materials Needed

Tools:

- Measuring tape
- Utility knife or heavy-duty scissors
- Level
- Hammer or rubber mallet (for securing)
- Adhesive (if applicable)
- Caulking gun (for sealant)

Materials:

- MC Resources Polymeric Barrier 5001
- Fasteners (if required)
- Primer (for adhesive application, if recommended)

4. Preparation Steps

1. **Site Assessment:** Review the installation site for structural integrity and suitability.
2. **Surface Preparation:** Clean the installation surface thoroughly to remove any dust, grease, or debris to ensure proper adhesion.
3. **Measurements:** Measure the installation area to determine the necessary length and width of the barrier.

5. Step-by-Step Installation

5.1 Cutting the Barrier

- **Measure and Cut:** Cut the barrier to the required lengths using a utility knife or heavy-duty scissors. Allow for extra length at joints (typically 2-3 inches) for overlapping.

5.2 Positioning the Barrier

- **Lay It Out:** Position the barrier in the desired location, ensuring it is straight and aligns with your measurements.

5.3 Securing the Barrier

- **Adhesive Application:** If using adhesive, apply a uniform layer to the back of the barrier. Ensure it is evenly distributed to avoid lifting.



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- **Mechanical Fastening:** If applicable, use appropriate fasteners to secure the barrier to the substrate, ensuring even spacing.

5.4 Sealing Joints

- **Overlap and Seal:** For sections that overlap, apply adhesive or sealant to ensure a watertight seal. Use a caulking gun for precision.

5.5 Final Inspection

- **Check Alignment:** Verify that the barrier is level and properly aligned. Make any necessary adjustments before the adhesive sets.

6. Maintenance and Care

- **Regular Inspections:** Check the barrier periodically for signs of wear or damage.
- **Cleaning:** Clean the barrier surface with mild soap and water; avoid harsh chemicals that could degrade the material.

7. Troubleshooting Common Issues

- **Adhesion Failure:** If the barrier lifts, check for surface cleanliness and reapply adhesive as necessary.
- **Gaps or Leaks:** Inspect overlaps and joints; reseal with adhesive or sealant to prevent water ingress.